

detection means configured to detect the packet received by the reception means to be a trigger according to source information of a layer higher than the network layer included in the packet received;

set-up means configured to initiate, when the detection means detects the trigger, a set-up operation to establish a cut-through connection through which packets from the source node to the destination node are transferred, bypassing network-layer processing at at least one boundary between logical networks; and

transmission means configured to transmit packets destined to the destination node through the cut-through connection established according to the set-up operation initiated by the set-up means;

wherein the received packet is transmitted through a default connection toward the destination node or the source node.

24. (New) A network node apparatus, comprising:

reception means configured to receive a packet from a destination node belonging to at least one logical network to a source node belonging to another logical network or an upper layer of the network node;

detection means configured to detect the packet received by the reception means to be a trigger according to source information of a layer higher than the network layer included in the packet received;

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set-up means configured to initiate, when the detection means detects the trigger, a set-up operation to establish a cut-through connection through which packets from the source node to the destination node are transferred, bypassing network-layer processing at at least one boundary between logical networks; and

transmission means configured to transmit packets destined to the destination node through the cut-through connection established according to the set-up operation initiated by the set-up means;

wherein the received packet is transmitted through a default connection toward the destination node or the source node.

25. (New) A network node apparatus, comprising:

reception means configured to receive a packet from a source node belonging to at least one logical network or an upper layer of the network node to a destination node belonging to another logical network;

detection means configured to detect the packet received by the reception means to be a trigger according to source information of a layer higher than the network layer included in the packet received;

set-up means configured to initiate, when the detection means detects the trigger, a set-up operation to establish a cut-through connection through which packets from the source node to the destination node are transferred, bypassing network-layer processing at at least one boundary between logical networks;

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transmission means configured to transmit packets destined to the destination node through the cut-through connection established according to the set-up operation initiated by the set-up means; and

buffer means configured to buffer the received packet from the source node to the destination node until the cut-through connection becomes useable, the received packet being transmitted through the cut-through connection.

26. (New) A network node apparatus, comprising:

reception means configured to receive a packet from a destination node belonging to at least one logical network to a source node belonging to another logical network or an upper layer of the network node;

detection means configured to detect the packet received by the reception means to be a trigger according to source information of a layer higher than the network layer included in the packet received;

set-up means configured to initiate, when the detection means detects the trigger, a set-up operation to establish a cut-through connection through which packets from the source node to the destination node are transferred, bypassing network-layer processing at at least one boundary between logical networks;

transmission means configured to transmit packets destined to the destination node through the cut-through connection established according to the set-up operation initiated by the set-up means; and

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